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AUBURN HOUSE
Proposed Residential Development

5100 TELECOMMUNICATION SIGNAL INTERFERENCE REPORT

Auburn House
Malahide
Dublin

Kinwest Ltd

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1 Introduction

1.1 Document purpose

This report gives information on the assessment of interference to existing telecommunications signals as a result of the new proposed development. High rise buildings or tall structures could potentially interfere, disturb or block an existing telecommunication signal. Officially licenced telecommunications signals operating in the correct designated area or path should not be adversely affected by the new development or if assessed to be effecting an existing signal should try to accommodate the signal provider to allow redirection or similar process.

1.2 Instruction

DKPartnership (DKP) have been commissioned by Kinwest Ltd to carry out the analysis and report for the proposed Auburn House residential development at Malahide, Co. Dublin.

1.3 Development description

The proposed development will consist of the preservation and protection of the existing Protected Structure of Auburn House and its stables as 1 no. residential dwelling; the conversion of the existing stables of Auburn House to provide for storage space for the main Auburn House and the construction of 368 no. new residential dwelling units (comprising 87 no. houses, 239 no. apartments & 42 no. duplex units) for an overall total of 369 no. residential units, including Auburn House. The development shall consist of 135 no. 1-bedroom apartments and duplex apartments, 138 no. 2-bedroom apartments and duplex apartments, 8 no. 3-bedroom apartments and duplex apartments, 47 no. 3-bedroom houses, 34 no. 4-bedroom houses, 6 no. 5-bedroom houses and the existing 11-bedroom Auburn House along with 1 no. childcare facility and 1 no. ancillary resident facility. The proposed development shall also provide landscaped public open space, car parking and all associated ancillary site development infrastructure including foul and surface water drainage, internal roads, cycle paths and footpaths, and boundary walls and fences. Vehicular access to the proposed development is to be via a new entrance at the R107 Malahide Road/Dublin Road entrance, with the existing entrance to Auburn House acting as a pedestrian/cyclist entrance and access to existing properties outside the application site, there will be a secondary entrance comprising modifications of the existing vehicular entrance off Carey's Lane to the south west of the development, the closure of the existing vehicular entrance to Little Auburn, the provision of 4 no. ESB substations, 1 no. new foul pumping station, public lighting; proposed foul sewer works along Back Road and Kinsealy Lane and all associated engineering and site works necessary to facilitate the development. The building heights range from 2 storey to 5 storey buildings with balconies or terraces being provided to the apartments and duplex units..

2 Findings and Summary

2.1 Finding existing tv/radio/telecommunication

It is a not as easy to establish if there are existing licenced television/radio/telecommunication signals present in the area as the Department of Environment, Climate and Communications and/or ComReg do not provide such information in the interest of home security as it is quoted to us. The only reasonable method currently available is scanning the tallest adjourning buildings for existing aerials and identify buildings occupied by blue light services.

2.2 Typical frequency ranges

TV signal providers use radio wave (30MHz-3000MHz) signals which are generally transmitted using multi directional aerials and by nature are typically long range (100km-200km) with multiple Fresnel zones and as a result are unlikely to be effected. Blue light services (Gardy, Ambulance, Fire Services and Coast Guard) use micro wave (30MHz-300MHz) signals which are generally transmitted using multi directional aerials and by nature are typically shorter range (10km-20km) with multiple Fresnel zones and also less likely to be effected. Telecommunication providers micro wave links, radar systems, satellite telemetry (300MHz-30GHz) signals generally require line of sight are could therefore be affected by taller structures. These signals also have multiple Fresnel zones but rely of the first Fresnel zone to be at least 60% clear. Long range signals have a very large first Fresnel zone and are unlikely to be affected, short range (1km-2km) point-to-point signals have a small (50m-100m) first Fresnel zone and could be more then 60% effected by a structure resulting in interference, disturbing or loss of signal.

2.3 Our search range

To identify possible interference to point-to-point signals we use a 1.5km diameter or a 3km search range from the location of the proposed development in all directions identifying exiting taller buildings / structures which are most likely used for transmitting/receiving telecommunication signals. See page 6 for search range area.

2.4 Findings

The search for roof / tall structures in the 3km zone around the new proposed development has **not** revealed any particular telecommunication company mast location with any dish or aerials nor is there any gardaí station or other blue light services in this area. Dublin air port communications are not affected.

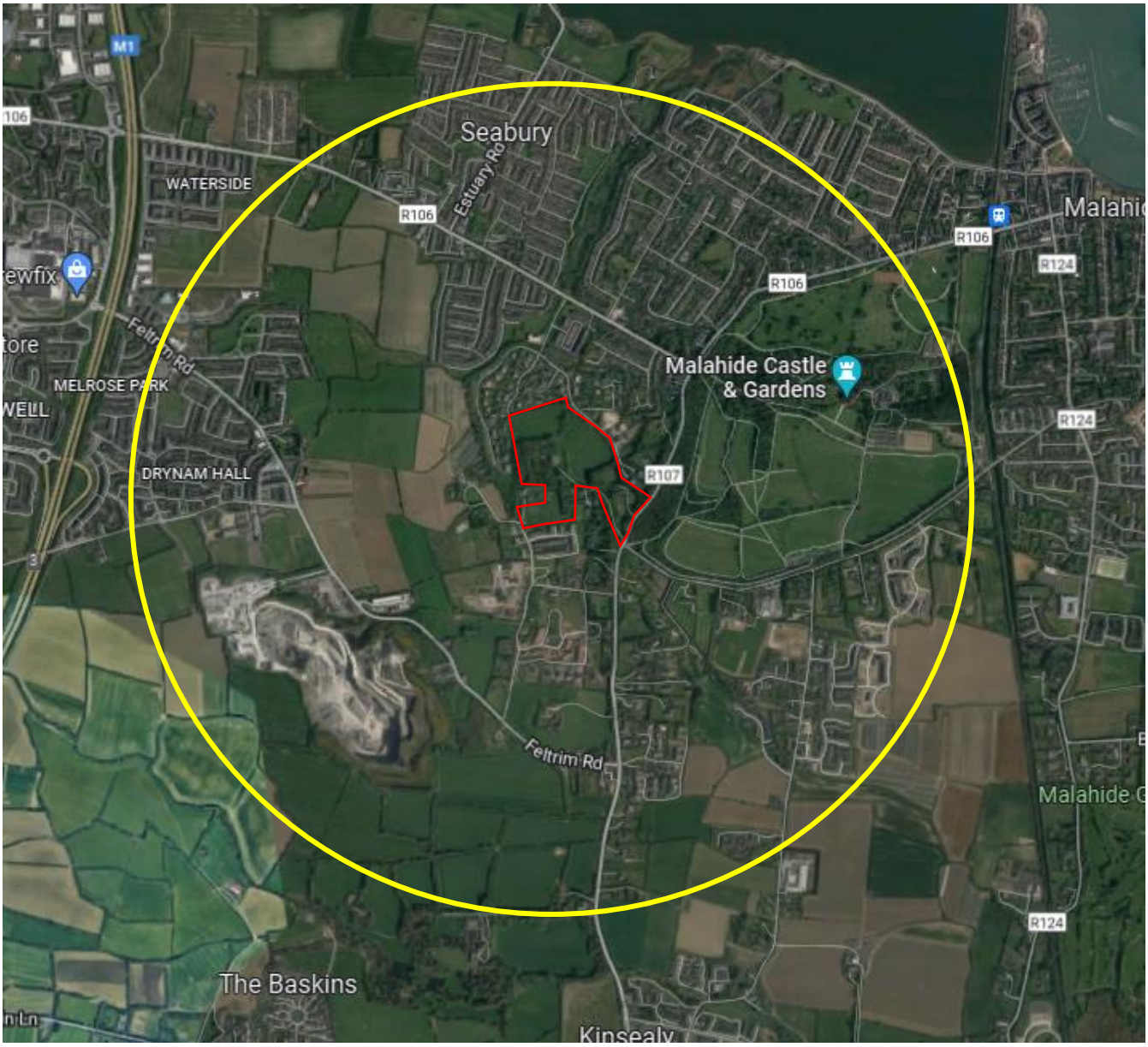
2.5 Assessment and conclusion

Based on the search findings we conclude that there appears to be no telecommunication signals directly crossing the new development site and the fact that the proposed development mainly consists of 2 storey dwellings, duplexes and apartment blocks ranging from 2 to 5 stories. Given the extend and height of the project it is very unlikely that the new development will interfere, disturb or block any existing licenced telecommunication signals. Any telecommunication signals crossing the site from greater distances beyond the 3km range will not be adversely affected as the signals would outside the first Fresnel zones.

Indeed ss the general greater area is reasably flat it may give a telecommunications provider a platform to install telecommunications equipment on the roof of a 5 storey element to provide a better mobile service for the area.

Geographical overview

Approximate site location (green outline) and 3 km search range (yellow circle)



Approximate site out line / location

3km range circle